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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/686,803

10/15/2003

Nathan Richmond Melhorn

2705-260

9648

20575

7590

12/26/2007

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EXAMINER

DAVENPORT, MON CHERI S

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

12/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/686,803

Applicant(s)

MELHORN, NATHAN RICHMOND

Examiner

Mon Cheri S. Davenport

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 0207.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-3, 6, 8, 11-13, 16-20, and 23-29** rejected under 35 U.S.C. 102(e) as being anticipated by Rasanen (US Patent Number 6,898,181).

Regarding **Claims 1 and 27** Rasanen discloses a network device comprising:

a processor to send and receive control and message traffic between the network device and other devices in a network(see figure 3, section 400, channel controller, see col. 8, lines 36-50, the channel controller, controls traffic channels) ;

a first port to allow the network device to communicate with a first network, the first network being a circuit switched network(see figure 3, section 23, transmission channels (plural), see col. 8, lines 52-54, transmission channels of other communication networks) ;

a second port to allow the network device to communicate with a second network, the second network being a packet switch network(see figure 3, section 23, transmission channels (plural), see col. 8, lines 52-54, transmission channels of other communication networks, which includes packet switch network.);

a transcompression element to route compression renegotiation messages and to transmit in-band renegotiation indication messages between the first and second networks (see figure 3, section 400, channel controller, see col. 8-9, lines 66-6, channel controller performs a flexible handshaking(reads on in-band) of the compression parameters)

wherein the processor is configure to monitor message traffic for in-band compression renegotiation messages during periods of compatible compression and decompression parameters (see figure 5, see col. 10, lines 62-67, the control function stores the data compression parameters, checks the set up messages (monitoring), see also, col. 15, lines 16-27, the control function monitors if the XID frame(in-band) from the PSTN modem is received in a predetermined time(during time of compatible compression and decompression), control function transmits the compression parameters it has set up in a RLP XID(in-band)).

Regarding **Claims 2 and 28** Rasanen discloses everything as applied above (*see claim 1 and 27*). In addition the network device includes:

the transcompression element further comprising an outgoing compressor and an incoming decompressor(see figure 4, section 406, data compression unit, see col. 9, lines 17-23).

Regarding **Claims 3 and 29** Rasanen discloses everything as applied above (*see claim 1 and 27*). In addition the network device includes:

a gateway between a public switched telephone network and a packet -switched network(see figure 3, section 21, group switch, see col. 8, lines 52-54, connected to telecommunication networks, PSTN and ISDN, see also col. 6, lines 44-48, invention is suitable for digital mobile systems comprising data transmission services for transmission of data between mobile station and fixed network, Which reads on packet switched network (digital mobile systems)).

Regarding **Claim 6** Rasanen discloses everything as applied above (*see claim 1*). In addition the network device includes:

the processor further to issue connection messages including an in-band renegotiation capability indicator(see figure 5, section 512, positive answer from ISDN terminal, see col. 11, lines 14-18, the positive answer is the indication of capability, the positive answer is a V.120 XID frame (in-band) comprising the compression parameters accepted by the ISDN terminal equipmeny))

Regarding **Claims 8 and 20** Rasanen discloses a method of controlling compression in a network, comprising:

receiving an indication of compression renegotiation at a first network device(see figure 511, send MS compression parameters to ISDN); and

transmitting an indication of compression renegotiation acknowledgement to a compressor element on a second network device(see figure 5, section 512 or 516, positive answer from ISDN terminal , or Negative answer)

and monitor message traffic for in-band compression renegotiation messages during periods of compatible compression and decompression parameters (see figure 5, see col. 10, lines 62-67, the control function stores the data compression parameters, checks the set up messages (monitoring), see also, col. 15, lines 16-27, the control function monitors if the XID frame(in-band) from the PSTN modem is received in a predetermined time(during time of compatible compression and decompression), control function transmits the compression parameters it has set up in a RLP XID(in-band)).

Regarding **Claims 11 and 23** Rasanen discloses a method of controlling compression in a network, comprising:

determining if a compression method for outgoing data is compatible with a decompression method for incoming data(see figure 9, section 113, 114 and 118, send

compression parameters to PSTN modem, positive answer from the PSTN modem, Negative answer, compatibly replies);

if the compression method and the decompression methods are compatible, transmitting incoming data as outgoing data without compression or decompression(see figure 9, section 116, bypass compression units, after a positive capability response is received) ;

monitoring message traffic for any in-band indications of compression renegotiation during periods of compatible compression and decompression parameters (see col. 12, lines 2-5, the control waits (monitors) for the terminal to transmit a request for data compression negotiation and providing compression parameters, see also, col. 15, lines 16-27, the control function monitors if the XID frame(in-band) from the PSTN modem is received in a predetermined time(during time of compatible compression and decompression), control function transmits the compression parameters it has set up in a RLP XID(in-band))); and

if an in-band compression renegotiation message is received (XID frame), determining if the renegotiation message will result in incompatibility between the compression and decompression methods(see figure 9, section 118, negative answer, means incompatibility).

Regarding **Claims 12 and 24** Rasanen discloses everything as applied above (*see claim 11 and 23*). In addition the method includes:

the method comprising performing transcompression if an incompatibility does result(see figure 9, section 120, set up data compression on GSM traffic channel, after an incompatible answer is obtained).

Regarding **Claims 13 and 25** Rasanen discloses everything as applied above (*see claim 11 and 23*). In addition the method includes:

determining that the compression method and the decompression methods are incompatible(see figure 9 section 118, negative answer);

performing transcompression on incoming data to transmit it as outgoing data(see figure 9, section 120, set up data compression);

receiving an indication of compression renegotiation(see figure 10, section 122, negotiation request from PSTN modem); and

determining the compression renegotiation will result in compatible compression and decompression(see figure 10, section 123, derive common compression parameters and send them to MS and PSTN modem, compatible) .

Regarding **Claim 16** Rasanen discloses everything as applied above (*see claim 11*). In addition the method includes:

monitoring message traffic further comprising monitoring simple packet relay transport (SPRT) messages between gateways in a packet switched network(see figure 5, section 505-511,

compression negotiation request from MS (mobile station), store parameter, send message to ISDN terminal, send MS compression parameters to ISDN(message traffic being monitored by controller) the mobile station(MS) is the packet switched network,).

Regarding **Claims 17 and 26** Rasanen discloses a method of communicating in a data network, comprising:

generating a connect message (see figure 10, section 122, negotiation request from PSTN modem);

including an in-band renegotiation capability advertisement in the connect message(see col. 14, lines 51-59, the control function waits to transmit a frame containing data compression parameters , and determines the common parameter values); and

transmitting the connect message(see figure 10, section 123, derive common compression parameters, and send them to MS and PSTN modem).

Regarding **Claim 18** Rasanen discloses everything as applied above (*see claim 17*). In addition the method includes:

the in-band renegotiation capability further comprising a V.44 in-band renegotiation message.

Regarding **Claim 19** Rasanen discloses everything as applied above (*see claim 17*). In addition the method includes:

transmitting a connect message further comprises transmitting a connect message from a first gateway to a second gateway.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 4 and 30** rejected under 35 U.S.C. 103(a) as being unpatentable over Rasanen in view of ITU-T V.150.1 hereafter V.150.1 .

Regarding **Claim 4 and 30** Rasanen discloses everything as applied above (*see claim 1 and 27*). In addition the network device includes:

the message traffic further comprising messages in accordance with International Telecommunications Union standard V.150.0 (see col. 8, line 42-43, channel controller supports V.120).

However Rasanen fail to specifically point out in accordance with International Telecommunications Union standard V.150.0 as claimed.

V.150.0 discloses in accordance with International Telecommunications Union standard V.150.0 (see page 22, Table 1/V.150., trans-compression mode)

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the most current standard V.150.0 because it is suitable to relay data between gateways and procedures to allow gateway to transition between Voice-over-Internet Protocol and Modem-over Internet Protocol operation (see page 1, Summary paragraph)

5. **Claims 5, 9-10, 14-15, and 21-22** rejected under 35 U.S.C. 103(a) as being unpatentable over Rasanen in view of ITU-T Recommendation V.44 hereafter V.44).

Regarding **Claim 5** Rasanen discloses everything as applied above (*see claim 1*). In addition the network device includes:

the transcompression element to transmit renegotiation confirmation messages further comprising a transcompression element to transmit renegotiation confirmation messages in accordance with International Telecommunication standard V.44 (see col. 10, lines 43-45, messages are defined for V.42 protocol) .

However Rasanen fail to specifically point out in accordance with International Telecommunication standard V.44 as claimed.

V.44 discloses in accordance with International Telecommunication standard V.44 (see page (i), data compression, algorithm V.44 achieves a better performance than V.42 bis on many types of data).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the most current standard V.44 because the alogorith has a method which can compress data already contained in packets in a efficient way (see V.44 page (i)).

Regarding **Claims 9 and 21** Rasanen discloses everything as applied above (*see claim 8 and 20*). In addition the method includes:

receiving a compression renegotiation message further comprising receiving an in-band renegotiation message in accordance with International Telecommunication Union standard V.44 (see col. 10, lines 43-45, messages are defined for V.42 protocol) and transmitting an indication of compression renegotiation further comprising transmitting a compression renegotiation indicator(see figure 5, section 505, compression negotiation request from MS, section 51, send MS compression parameters to ISDN terminal).

However Rasanen fail to specifically point out in accordance with International Telecommunication standard V.44 as claimed.

V.44 discloses in accordance with International Telecommunication standard V.44 (see page (i), data compression, algorithm V.44 achieves a better performance than V.42 bis on many types of data).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the most current standard V.44 because the alogorith has a method which can compress data already contained in packets in a efficient way (see V.44 page (i)).

Regarding **Claims 10 and 22** Rasanen discloses everything as applied above (*see claim 8 and 20*). In addition the method includes:

receiving an indicator of compression renegotiation further comprising receiving a compression renegotiation indicator and transmitting an indicator of compression renegotiation acknowledgement further comprising transmitting a compression confirmation message in accordance(see figure 5, section 512 or 516, positive answer from ISDN terminal or Negative answer) with International Telecommunications Union standard V.44(see col. 10, lines 43-45, messages are defined for V.42 protocol).

However Rasanen fail to specifically point out in accordance with International Telecommunication standard V.44 as claimed.

V.44 discloses in accordance with International Telecommunication standard V.44 (see page (i), data compression, algorithm V.44 achieves a better performance than V.42 bis on many types of data).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the most current standard V.44 because the alogorith has a method which can compress data already contained in packets in a efficient way (see V.44 page (i)).

Regarding **Claim 14** Rasanen discloses everything as applied above (*see claim 11*). In addition the method includes:

wherein the compression method is one selected from the group comprising: V.44, V.42bis and MNP5 compression (see col. 1, lines 39-40, data modem usually support V.42 bis and MNP5 methods).

However Rasanen fail to specifically point out in accordance with International Telecommunication standard V.44 as claimed.

V.44 discloses in accordance with International Telecommunication standard V.44 (see page (i), data compression, algorithm V.44 achieves a better performance than V.42 bis on many types of data).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the most current standard V.44 because the algorithm has a method which can compress data already contained in packets in a efficient way (see V.44 page (i)).

Regarding Claim 15 Rasanen discloses everything as applied above (*see claim 12*). In addition the method includes:

wherein the compression method is one selected from the group comprising: V.44, V.42bis and MNP5 (see col. 1, lines 39-40, data modem usually support V.42 bis and MNP5 methods).

However Rasanen fail to specifically point out in accordance with International Telecommunication standard V.44 as claimed.

V.44 discloses in accordance with International Telecommunication standard V.44 (see page (i), data compression, algorithm V.44 achieves a better performance than V.42 bis on many types of data).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the most current standard V.44 because the algorithm has a method which can compress data already contained in packets in a efficient way (see V.44 page (i)).

Response to Arguments

6. Applicant's arguments filed October 17, 2007 have been fully considered but they are not persuasive.

7. Rejection under 35 USC 101 have been withdrawn due to Applicant's amendment sent October 17, 2007.

In the remarks on pg. 8-9 of the amendment, the applicant contends that (prior art) does not teach or suggest “a first port to allow the network device to communicate with a first network, the first network being a circuit switched network “and “a second port to allow the network device to communicate with a second network, the second network being a packet switch network.”

Examiner respectfully disagrees Rasanen teaches that the transmission channels (meaning more than one) are connected to the group switch, traffic channels are telecommunication network (packet switch network), ISDN and PSTN.

In the remarks on pg. 9 of the amendment, the applicant contends that Rasanen does not teach or suggest “a transcompression element to route in-band compression renegotiation messages and to transmit in-band renegotiation indication messages between the first and second networks”

Examiner respectfully disagrees Rasanen teaches that in-band RLP XID frames are sent with compression parameters between networks.

In the remarks on pg. 10 of the amendment, the applicant contends that (prior art) does not teach or suggest “monitoring message traffic for in-band renegotiations messages during periods of compatible compression and decompression parameters.”

Examiner respectfully disagrees Rasanen teaches that it monitors if and XID frame is not received in a predetermine time; this is an indication that the negotiation has failed. Checking if XID frame is received is during time of compatible compression and decompression.

In the remarks on pg. 10 of the amendment, the applicant contends that Ranasen does not teach or suggest "a gateway between a public switched telephone network and a packet switched network"

Examiner respectfully disagrees Rasanen teaches that gateway switch is between a PSTN and other telecommunication networks, which includes packet switch network.

See rejection, as amended claims are addressed.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mon Cheri S. Davenport whose telephone number is 571-270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD/md
December 18, 2007



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